

1     What is claimed is:

2     1. A communication system for wireless data communication said  
3     system comprising:

- 4             a)    a wireless communication device capable of  
5                   conducting data communication through an over-  
6                   the-air network;
- 7             b)    a computer network access facility structured to  
8                   access a computerized network;
- 9             c)    a transceiver assembly operative on a short range  
10                   communication standard and structured to  
11                   communicatively interconnect said wireless  
12                   communication device with said computer network  
13                   access to establish data communication therewith,
- 14            d)    said transceiver assembly including a first  
15                   transceiver communicatively connected to said  
16                   computer network access, at least a second  
17                   transceiver connected to said wireless  
18                   communication device, and an auto-switching  
19                   capability responsive to pre-determined  
20                   parameters;
- 21            e)    said auto-switching capability being  
22                   determinative of data communication with said  
23                   wireless communication device either over the  
24                   computerized network through said computer  
25                   facility or by the over-the-air network dependent

1                   on the establishment of said predetermined  
2                   parameters, and

3               f)    at least one of said predetermined parameters  
4                   comprising a pre-established vicinity range.

5       2.   A system as recited in claim 1 wherein said transceiver  
6           assembly is operative on a short range frequency.

7       3.   A system as recited in claim 1 wherein said transceiver  
8           assembly automatically establishes communicative  
9           recognition between said computer network access and said  
10          wireless communication device within said pre-established  
11          vicinity range.

12      4.   A system as recited in claim 1 wherein said predetermined  
13          parameters further comprise recognition compliance of said  
14          wireless communication device based at least partially on  
15          a unique identifier.

16      5.   A hybrid communication system for wireless data  
17          communication said system comprising:

18           a)   a wireless communication device capable of  
19               conducting data communication through an over-  
20               the-air network,

21           b)   a processor configured for computerized network  
22               access,

23           c)   a transceiver assembly operative on a short range  
24               communication standard and structured to  
25               interconnect said wireless communication device

1 and said processor to establish data  
2 communication therewith,

3 d) said transceiver assembly including a first  
4 transceiver connected to said processor, at least  
5 a second transceiver connected to said wireless  
6 communication device, and an auto-switching  
7 capability responsive to pre-determined  
8 parameters,

9 e) said auto-switching capability being  
10 determinative of data communication with said  
11 wireless communication device either over the  
12 computerized network through said processor or by  
13 the over-the-air network dependent on the  
14 establishment of said predetermined parameters,

15 f) at least one of said predetermined parameters  
16 comprising a pre-established vicinity range.

17 6. A system as recited in claim 5 wherein said first and  
18 second transceivers are operative to at least establish  
19 data communication between said processor and said wireless  
20 communication device within said pre-established vicinity  
21 range.

22 7. A system as recited in claim 6 wherein said wireless  
23 communication device is operative to establish data  
24 communication by said over-the-air network outside of said  
25 pre-established vicinity range.

- 1       8.    A system as recited in claim 7 wherein said auto-switching  
2           capability is responsive to said pre-established vicinity  
3           range to automatically establish at least two way  
4           communication between said wireless communication device  
5           and said processor when said pager assembly is within pre-  
6           established said vicinity range.
- 7       9.    A system as recited in claim 5 wherein said processor  
8           comprises a computer operatively connected to a computer  
9           network access.
- 10      10.   A system as recited in claim 5 wherein said processor  
11           comprises a computer network access.
- 12      11.   A system as recited in claim 5 wherein said wireless  
13           communication device comprises a pager assembly including  
14           multi-line communication capabilities operable on at least  
15           two independent frequency ranges.
- 16      12.   A system as recited in claim 5 wherein said transceiver  
17           assembly includes a scanning capability, said scanning  
18           capability structured to provide continuous searching by at  
19           least one of said first or second transceivers for the  
20           other of said transceivers and establish communication  
21           there between when said wireless communication device is  
22           within said pre-established vicinity range.
- 23      13.   A system as recited in claim 5 wherein said transceiver  
24           assembly includes selective configuration capability  
25           responsive to said first and second transceivers being

1 located within said pre-established vicinity range; said  
2 system structured to instruct said over the air network to  
3 regulate transmission of data to said wireless  
4 communication device.

5 14. A system as recited in claim 13 wherein said over-the-air  
6 network is responsive to selective storage of all data to  
7 said wireless communication device and/or transmit data to  
8 said wireless communication device within a selectable time  
9 window.

10 15. A system as recited in claim 14 wherein modification of  
11 said selective configuration capability is performed  
12 through said wireless communication device.

13 16. A system as recited in claim 14 wherein modification of  
14 said selective configuration capability is performed  
15 through said computer.

16 17. A system as recited in claim 5 wherein said transceiver  
17 assembly and said auto-switching capability determinative  
18 of data communication with said wireless communication  
19 device, either by said over-the-air network or by Internet  
20 access, dependent on the establishment of said  
21 predetermined parameters.

22 18. A method of hybrid communication utilizing a multi-  
23 frequency wireless communication device and a computer  
24 network access facility, said method comprising:

25 a) establishing communication between the computer

1 network access facility and the wireless  
2 communication device when both are located within  
3 a pre-establish vicinity range,

4 b) communicating data to the wireless communication  
5 device over the computer network through the  
6 computer network access facility,

7 c) alternatively establishing data communication  
8 with the wireless communication device by a  
9 compatible over-the-air network when the computer  
10 network access facility and the wireless  
11 communication device are disposed outside of the  
12 pre-established vicinity range, and

13 d) automatically switching communication with said  
14 wireless communication device between the  
15 computer network and the over-the-air network  
16 dependent at least on said wireless communication  
17 device being inside or outside said pre-  
18 established vicinity range relative to the  
19 computer network access facility.

20 19. A method as recited in claim 18 comprising establishing at  
21 least two-way messaging with the wireless communication  
22 device over the computer network through the computer  
23 network.

24 20. A method as recited in claim 18 comprising conducting a  
25 scan by at least one of the wireless communication device

1 or computer network access facility for the other to  
2 establish communication therebetween when both are within  
3 the pre-established vicinity range.  
4  
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